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CHANGES IN FOOD EXPENDITURES BY INCOME GROUP

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This report examines how food expenditures and income have changed for family income groups over a 12-year period. The data are from 1960-61 and 1972-73 Bureau of Labor Statistics Consumer Expenditure Surveys. Family income rose at each income level studied. But, the percentage of family income spent for food by the lowest income group rose slightly, while the proportion of income spent on food declined significantly for higher income groups.

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SUMMARY

Low-income families spent a slightly greater portion of their income for food in 1972-73 than they did in 1960-61, as food expenditures increased more than before-tax income. In contrast, higher income groups spent a smaller portion of their income for food.

Away-from-home food expenditures (restaurant meals and snacks) increased for all income groups featured in this study, although wealthier families accounted for most of the expenditures in the away-from-home market.

This report examines the impact of higher income and other demographic and socioeconomic changes on consumers' retail food expenditures at different income levels. Food expenditures and incomes were compared by family groups (quintiles) according to family income, because of striking income changes between the periods surveyed. The income-to-food-expenditure relationships measured between 1960-61 and 1972-73 may be different today as a result of higher levels of public food assistance to the poor.

The study is based on the 1960-61 and 1972-73 Consumer Expenditure Surveys conducted by the Bureau of Labor Statistics, U.S. Department of Labor. These survey data are the most recent and comprehensive data available on U.S. patterns of food expenditures. Revised surveys of this type will not be released until at least 1982.

Changes in Food Expenditures by Income Group

Anthony E. Gallo, William T. Boehm, Corinne LeBovit [1/]

INTRODUCTION

This report examines the impacts of higher income and other demographic and socioeconomic changes on consumers' retail food expenditures at different family income levels. Food expenditures and incomes were compared by family groups (quintiles) according to family income because of striking income changes between the periods surveyed.

The study is based on the 1960-61 and 1972-73 Consumer Expenditure Surveys conducted by the Bureau of Labor Statistics (BLS), U.S. Department of Labor. The survey data are the most recent and comprehensive available on U.S. patterns of food expenditures. Revised surveys of this type will not be released until at least 1982.

U.S. disposable personal income and employment rose during the periods studied. Social Security payments, public assistance, and the value of family food programs also advanced sharply. Family size, racial composition, age of family head, and other demographic factors changed too.

Specific questions addressed are:

(1) How did major socioeconomic characteristics and sources of income change over this 12-year period?

(2) Did family income groups' influence on food expenditures change relative to each group's portion of the population and income?

(3) Did the portion of income spent on food change for each family income group? For food at home? Food away from home?

(4) Did food stamps make much difference in the relative position of the lowest income group?

(5) Did the per capita differential in food spending narrow between higher and lower income groups?

(6) Did the allocation of the food dollar between food at home and food away from home for each income group change?

(7) How did the allocation between 1961 and 1972 of the food-at-home dollar change over this period?

1/ Anthony E. Gallo and William T. Boehm are agricultural economists with the National Economics Division (NED), ESCS. Corinne LeBovit, now retired, was a food economist with NED.

DATA AND METHODOLOGY

Data for this analysis are primarily from the 1972-73 Bureau of Labor Statistics (BLS) Consumer Expenditure Diary Survey (CEDS). Those data are the most current and comprehensive available on household purchases. The survey, which has been taken every 10 to 12 years (1950, 1960-61, 1972-73), is the largest Government survey of its type; it covers 45,000 households. This massive data base, which took 2 years to collect, took over 4 years to prepare for public use. BLS released the data tapes for public use in 1978. ESCS, since then, has been preparing the data for analysis. The next survey will probably not be released for several years. As of January 1, 1978, the data have provided a basis for establishing expenditure weights in the Consumer Price Index.

The 1972-73 survey consisted of 2-year quarterly interviews of 26,000 households (of which 20,000 were usable) and a diary survey of about 60,000 households (of which 45,000 were usable). The data on income and food away from home are from the interview. The data on food at home are from the diary.

The BLS comparison surveys, limited by a number of unexplored factors, show some significant differences in food expenditure items. 2/

(1) The methodology of the two surveys in collecting and processing the data differed markedly. This may account for some of the differences in food expenditures by income groups between 1960-61 and 1972-73.

(2) The BLS data in 1972-73 did not measure the value of food produced at home. The fact that many lower income people, who account for most of the food purchased at home, moved into metropolitan areas may well have curtailed this source of food.

(3) The highest income and, to some extent, the lowest income group, are open ended (that is, income extremes are included). The expenditure patterns of households in these two groups were somewhat distorted by this fact.

(4) Regionalization, racial composition, and urbanization of the population, which also changed between these two surveys, are not investigated in this report.

These shortcomings do not, however, significantly reduce the value of the study.

SOCIOECONOMIC AND DEMOGRAPHIC CHANGES

Socioeconomic and demographic factors changed considerably between the two survey periods. Average family size fell from 3.2 to 2.8 persons (table 1), although total population increased 17 percent. The decline, in part, was due to a lower birth rate, as evidenced by the drop in the number of children under 18. However, a significant increase in the number of single-person households also helped account for the decline. Thus, while the average age of the population was higher in 1972-73 than in 1960-61, the average age of the family head had fallen slightly. About one of every seven American families were single-member households in 1960-61; by 1972-73, this had risen to one of every five.

2/ Some difference exists between the estimated expenditure functions and elasticities between the two survey periods. However, for most food and nonfood groups, the income and household-size elasticities are quite similar, suggesting that these elasticities remain stable even during periods of high inflation.

Table 1--Selected family characteristics by income group, 1960-61 and 1972-73

Family income group 1/	Average income		Average age of family head		Family size		Children under 18		People 65 and over		Percentage nonwhite 2/	
	60-61	72-73	60-61	72-73	60-61	72-73	60-61	72-73	60-61	72-73	60-61	72-73
	-- Dollars --		-- Years --		---------- Persons ----------						-- Percent --	
1st	1,692	2,413	60	57	2.1	1.6	0.6	0.4	0.6	0.6	20.4	19.1
2nd	3,658	6,072	49	49	2.9	2.4	1.1	.8	.4	.5	15.0	14.9
3rd	5,482	10,178	43	43	3.4	3.0	1.4	1.1	.2	.2	9.0	10.4
4th	7,548	14,791	43	43	3.5	3.5	1.6	1.4	.1	.2	3.7	7.5
5th	12,545	25,860	46	47	3.9	3.8	1.5	1.4	.2	.2	3.7	5.2
Average	6,245	11,419	48	48	3.2	2.8	1.2	1.0	.3	.3	11.0	11.4

1/ The income groups are ranked from lowest to highest with the 1st group having the lowest income.
2/ Includes all orientals and native Americans.
Source: CEDS

Average dollar income for all families increased about 83 percent, although the increases varied directly by family income group. Average family income doubled for the highest income group, while it rose the least--about 40 percent--for the lowest income group. For the middle three groups, income increased 66, 86, and 96 percent, respectively.

Sources of family income changed little, despite the infusion of public welfare payments between the two periods: Earned income (mainly wages and salaries) declined as a percentage of total income, but the decline was offset by an increase in Social Security payments and private pensions. This increase was due largely to earlier retirements and higher old age benefits.

Public welfare (excluding food stamps), which accounted for about one-half of 1 percent of total family income in 1960-61, increased to about 1 percent in 1972-73. Yet it represented about one-eighth of the income of the lowest income group in 1972-73. Roughly 40 percent of this group's income came from Social Security payments; 33 percent of the group were 65 years or older (table 2).

CHANGES IN TOTAL FOOD EXPENDITURES AND INCOME

Total consumer expenditures on food (in current dollars) advanced 72 percent between 1960-61 and 1972-73, from $68 to $118 billion. Forty percent of that gain represented increased expenditures for food away from home. These more than doubled, from almost $14 billion to $34 billion in 1972-73. The portion of total food expenditures allocated to food away from home rose from 20 to nearly 30 percent as a result. Food-at-home expenditures increased $27 billion, about 50 percent (table 3).

Total food expenditures increased inversely to the position of the income group. Food expenditures for the lowest group rose 75 percent, while for the wealthiest families they went up 63 percent. The difference, however, was largely due to expen-

Table 2--Sources of income by family income group, 1972-73

Source	Income group 1/				
	1	2	3	4	5
	Percent				
Earned income	29.1	61.6	82.7	89.0	88.7
Rents, interest, dividends	6.0	6.0	4.0	2.9	5.5
Social Security	39.1	16.3	4.1	2.1	1.0
Retirement, unemployment compensation, and other	13.6	13.3	9.3	5.9	4.8
Public assistance	12.3	3.0	*	*	*
Total 2/	100.0	100.0	100.0	100.0	100.0

* = Less than 0.05 percent.

1/ The income groups are ranked from lowest to highest with the first group having the lowest income. 2/ Totals may not add due to rounding.

Source: CEDS

ditures for food at home: for the lowest income group, food-at-home expenditures increased 65 percent, nearly twice the increase for the highest group. Food-away-from-home expenditures at least doubled for all income groups.

Food expenditures for the lower income families increased more than for the wealthier families, but their incomes rose significantly less. Total before-tax income advanced 75 percent for the lowest income group, while it rose 150 percent for the highest group. Much of this differential was due to smaller family size and a higher incidence of retirees among the lower income groups.

The influence each family income group exerts on total market for food relative to income and population shares changed significantly between the two survey periods. Several clear patterns emerge:

(1) The portion of the total population accounted for by the two lowest family income groups declined, while it increased for the two highest groups because of changes in family size.

(2) The portion of total income earned by the two lowest income groups showed a decline, while the highest income groups showed an increase.

(3) The portion of total food expenditures accounted for by the lowest income group rose (table 4).

(4) The portion of food-at-home expenditures accounted for by the two lower income groups also increased, but declined for the highest income groups.

(5) The portion of total food-away-from-home expenditures accounted for by the first, second, and fifth income groups dropped, but rose for the third and fourth income groups (table 5).

FOOD AS A PERCENTAGE OF INCOME

The share of before-tax income spent on food, according to BLS data, fell from 20 percent of income in 1960-61 to 14.5 percent in 1972-73. These ratios are in line with the percentage of disposable income spent on food derived from the Department of Commerce data. However, striking differences existed in the income share spent on food by each family income group.

The lowest income group in 1960-61 spent about a third of its income on food. This had risen slightly by 1972-73 (table 6). Family food assistance programs, whose value increased from $200 million in 1960-61 to about $2 billion in 1972-73, lowered that ratio by about 2 points, assuming that all food assistance went to the lowest income group.

The income share spent on food at home fell for all groups. The lowest income group dropped the least, from about 29 to 27 percent. Total value of bonus food stamps lowered the 1972-73 ratio to 26 percent. The income share spent on food at home in the highest income group dropped from about 13 percent to 6½ percent (see fig. 1).

The income share spent for food away from home rose for the four lower income groups, but dropped for the highest income group.

Table 3--Aggregate food expenditures and income by family income group, 1960-61 and 1972-73

Family income group 1/	Food expenditures						Income before taxes	
	Total		At home		Away from home			
	1960-61	1972-73	1960-61	1972-73	1960-61	1972-73	1960-61	1972-73
	Billion dollars							
1st	6.3	11.0	5.4	8.9	0.9	2.1	18.7	32.5
2nd	10.3	17.2	8.5	13.1	1.8	4.1	40.5	81.9
3rd	13.4	22.3	11.1	16.0	2.3	6.3	60.6	137.2
4th	16.4	27.4	13.3	19.1	3.1	8.3	83.5	199.4
5th	21.9	35.6	16.5	22.5	5.4	13.1	138.9	348.6
Total 2/	68.3	117.7	55.3	82.2	13.6	33.9	342.2	3/813.3

1/ The income groups are ranked from lowest to highest with the 1st group having the lowest income.
2/ Family income groups include only complete reporting units.
3/ May not total due to rounding.
Source: CEDS

Table 4--Portion of total income, population, and food expenditures, 1960-61 and 1972-73

Family income group 1/	Portion of income before tax		Portion of population reporting		Portion of food expenditures	
	1960-61	1972-73	1960-61	1972-73	1960-61	1972-73
	Percent					
1st	5.5	4.0	13.1	10.9	9.2	9.7
2nd	11.8	10.1	17.9	17.3	15.1	15.1
3rd	17.7	17.0	21.2	21.5	19.6	19.6
4th	24.4	24.7	23.1	24.5	24.0	24.1
5th	40.6	43.2	24.7	26.3	32.0	31.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

1/ The income groups are ranked from lowest to highest with the 1st group having the lowest income.
Source: CEDS

Table 5--Portion of total food expenditures by family income group, 1960-61 and 1972-73

Family income group 1/	Food at home		Food away from home	
	1960-61	1972-73	1960-61	1972-73
	Percent			
1st	9.7	11.1	6.8	6.2
2nd	15.3	16.4	13.5	12.0
3rd	20.0	20.1	17.0	18.6
4th	24.1	24.0	23.1	24.5
5th	29.8	28.2	39.6	38.7
Total	100.0	100.0	100.0	100.0

1/ The income groups are ranked from lowest to highest with the 1st group having the lowest income.

Source: CEDS

Table 6--Food as a percentage of income by family income group, 1960-61 and 1972-73

Family income group 1/	All food		Food at home		Food away from home	
	1960-61	1972-73	1960-61	1972-73	1960-61	1972-73
	Percent					
1st	33.7	34.2	28.7	27.3	5.0	6.5
2nd	25.5	21.0	21.0	16.0	4.5	5.0
3rd	22.0	16.3	18.2	11.7	3.8	4.6
4th	19.7	13.7	15.9	9.6	3.9	4.2
5th	17.0	10.2	12.8	6.4	4.2	3.8
Average	20.0	14.5	16.1	10.0	4.0	4.4

1/ The income groups are ranked from lowest to highest with the 1st group having the lowest income.

Source: CEDS

PER CAPITA FOOD EXPENDITURES AND INCOME

Because family sizes differ among the different income groups, it is useful to compare annual per capita food expenditures and income (table 7).

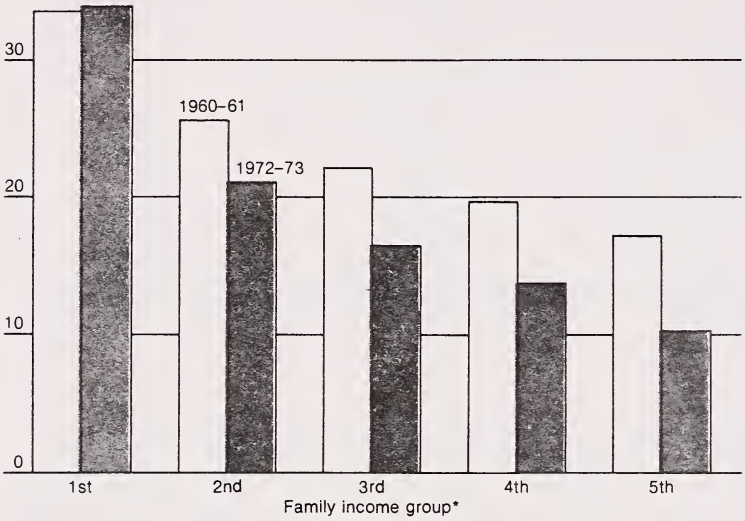
Per capita annual income for the highest group in 1960-61 was four times that of the lowest group. It was nearly 4½ times more by 1972-73.

There was remarkably little difference in per capita food-at-home expenditures in 1972-73, regardless of income group. The lowest income group spent $425, while the highest income group spent $445 per person. However, in 1960-61, there was a 65-percent difference between the highest and lowest income group. A major disparity existed in food-away-from-home spending. Per capita expenditures in 1972-73 were $100 for the lowest income group and $259 per person for the highest income group (see fig. 2).

Figure 1

Percent of Income Spent on Food

Percent



*The income groups are ranked from lowest to highest with the 1st group having the lowest income.

Per Capita Food Expenditures

$ per person per year

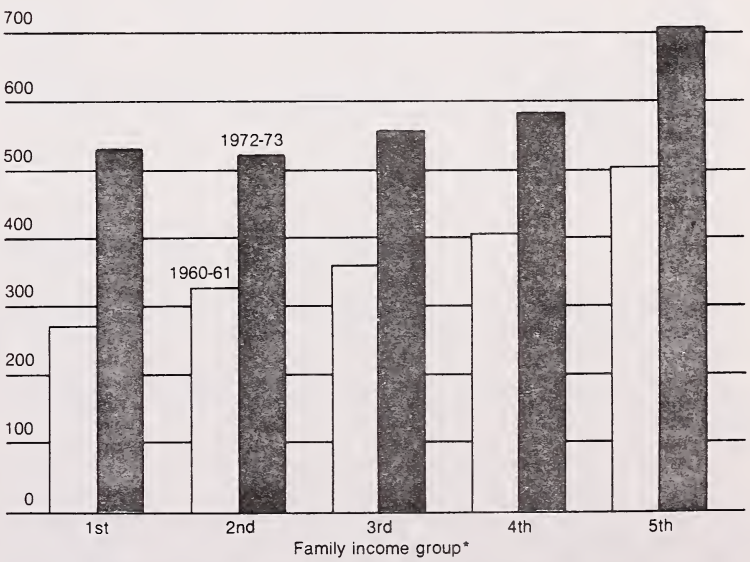


Figure 2 *The income groups are ranked from lowest to highest with the 1st group having the lowest income.

Table 7--Per capita yearly food expenditures and income by family income group, 1960-61 and 1972-73

Family income group 1/	Food expenditures						Income	
	Total		Food at home		Food away from home			
	1960-61	1972-73	1960-61	1972-73	1960-61	1972-73	1960-61	1972-73
	Dollars							
1st	269	526	231	425	38	100	799	1,557
2nd	324	520	267	397	57	124	1,273	2,478
3rd	356	551	295	396	61	156	1,611	3,393
4th	400	581	324	404	76	176	2,036	4,227
5th	501	704	378	445	124	259	3,178	6,895
Average	386	510	312	398	77	172	1,932	3,948

1/ The income groups are ranked from lowest to highest with the 1st group having the lowest income.

Source: CEDS

ALLOCATION OF THE FOOD-AT-HOME DOLLAR

Major shifts occurred in the allocation of the food-at-home dollar between 1961 and 1972 (tables 8 and 9). The biggest change was an increase in the proportion of the food dollar going to sugars and sweets, primarily due to a near doubling of expenditures for soft drinks. In 1972-73, 38.8 percent of the food budget was spent on meat, poultry, fish, eggs, prepared and snack foods, and condiments. Less than 36 cents of each dollar was spent on meat, poultry, fish, and eggs in 1960-61. This share had risen to about 39 cents in 1972, as less of the food dollar was being spent on grain products, dairy products, fruits and vegetables, and fats and oils.

There was also a change in choices within each group. A much greater proportion of grain-product money was going for bakery products other than bread, such as crackers, cakes, pies, and doughnuts.

Consumers spent less money on milk and frozen desserts and more money on cheeses in 1960-61. There was a shift away from canned and frozen fruit to fresh fruit and canned vegetables during the sixties. The main change among fats and oils was a decrease in the position of butter and an increase in salad dressings in 1972-73.

CONCLUSIONS

While before-tax income widened between the higher and lower income groups, the disparity in food spending narrowed between 1960-61 and 1972-73. However, the income data do not include in-kind transfers, such as housing subsidies, medicare and medicaid, education, and other Government subsidies. Benefits paid by private industry, such as health benefits, which presumably accrue to higher income Americans, were also excluded.

The asset position of the different groups was also excluded. This may have some discernible impact on the position of older income Americans, many of whom are in the lower income groups.

Income underreporting, which tends to be greater among lower income Americans, was not taken into account.

Table 8--Allocation of the food-at-home dollar, 1960-61 and 1972-73

Item	1960-61	1972-73	1972-73 ÷ 1960-61
		Percent	
All food at home	100.0	100.0	--
Meat, poultry, fish, eggs	35.7	38.8	109
Dairy products (excluding butter)	14.5	13.1	90
Fruits, vegetables	16.1	14.4	89
Flour, cereals, bakery products	13.5	11.9	88
Fats, oils (including butter)	4.4	3.4	77
Sugars, other sweets, soft drinks	5.3	7.0	132
Other beverages, soups, other prepared foods, snack foods, condiments	10.6	11.4	108

-- = Not applicable.
Source: CEDS

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Table 9--Allocation of the at-home food group dollar, 1960-61 and 1972-73

Item	1960-61	1972-73
	Percent	
Cereal, bakery products	100	100
Flours, cereals	34	26
Bread	30	29
Other bakery products	36	45
Dairy products (excluding butter)	100	100
Milk, cream	72	69
Frozen desserts	13	10
Soft cheese	4	6
Other cheese	11	15
Fruits, vegetables	100	100
Fruits:		
Fresh	23	26
Frozen	9	5
Canned	17	15
Vegetables:		
Fresh	31	31
Frozen	6	6
Canned	14	17
Fats, oils	100	100
Butter	31	19
Margarine	20	24
Shortening, salad dressing	29	41
Oil, peanut butter	20	16

Source: CEDS

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